

**Clinical Manifestation of Russell's Viper Envenomation in Thailand**

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**OBJECTIVE:** To determine the clinical manifestation including acute kidney injury (AKI) in patient with RV bite.

**METHOD:** The cross-sectional data of patients with Russell's viper (RV) bite between 2017-2018 were retrieved from the Ramathibodi Poison Center Toxic Exposure Surveillance System.

**RESULTS:** Twenty-seven patients were recruited. Most were male (85.2%). The median age was 40 years old (8-58). The median initial serum creatinine (SCr) was 1.08 mg/dL (0.38-12.75).

The median time from snake bites to hospital visit was 0.67 hours (0.25-48 hours). Most (70.0%) had local effect. Eight patients (29.6%) had systemic bleeding (hematuria, bleeding per gum, bleeding from gastrointestinal tract). The median time from snake bites to initial abnormal laboratory findings were as follow: abnormal platelet 12 hours (0.33-72), PT with INR 6 hours (1-72), venous clotting time or 20-minute whole blood clotting time 6 hours (1-72), urine analysis 10 hours (2-72), SCr 7.65 hour (1-72) and fibrinogen level 7 hours (4-19). The maximum median lowest levels of platelet and SCr were found on 38.5 hours (2-168) and 14.33 hour (0.33-216), respectively. Fifteen patients (55%) developed acute kidney injury (AKI) with median maximum SCr 3.7 mg/dL (1.09-16.45). Capillary leak syndrome and acute phase of pituitary/adrenal insufficiency were not found in our study. One patient died due to venom anaphylaxis. All received antivenom. Hemodialysis was performed in five patients whereas four patients still received hemodialysis after discharge.

After antivenom treatment, coagulopathy and thrombocytopenia improved within the 1st day (the median time 25 hours (6-168) and the 3rd day after bites.

No statistically significant differences were found in the time to antivenom treatment after bite between the patients who developed and did not develop AKI.

**CONCLUSIONS:** Fifty-five percent of patients with RV bite developed AKI. There is no association between the time to antivenom treatment after bite and incidence of AKI.